GLEANINGS IN BEE CULTURE

Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

PUBLISHED MONTHLY, AT MEDINA, OHIO,

BY A. I. ROOT.

Vol. III **November, 1875.** **No. 11**

In the Preparation of this Journal the following are the Principal Periodicals Consulted:

American Bee Journal. *Clarke, and Mrs. Tupper.*

Bee-Keeper's Magazine. *King.*

Bee World. *A. F. Moon & Co.*

[Also Bound Volumes of the former since 1860, and Files of all other Bee Journals that have been Published in America.]

American Agriculturist,

Prairie Farmer,

Rural New Yorker,

Country Gentleman,

Southern Farmer,

Scientific American.

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DEAR SIR: *Amboy, Ills., Sept. 6th, '75.*
The Foundation Combs you sent me were rec'd all right. I at once experimented with them. Extracted honey from one in three days after placing it in the hives. They are just the thing so long needed and can be used for almost every purpose and way about the hive.
Signed, Yours truly, R. H. MELLEN.

DEAR SIR: *Brookfield, N. H., Sept. 11th, '75.*
The Combs are perfectly satisfactory. This lot I put into 19 Langstroth frames and put in upper and lower stories both, between full combs in various hives. Some combs were wet with sweetened water, some were not, it made no difference. Some of them are *full* of honey cells lengthened out and partly sealed. Signed, Yours resp'y, E. C. NEWELL.

DEAR SIR: *St. Johnsville, May 18th, '75.*
In a hive that was about ready to need combs I put a large frame containing half a dozen small ones, small ones 5x6 square, in half of them I put pieces of Foundations, in the other half I put a guide of wax across the top one-fourth inch in width. Bees have commenced on both alike; cells in Foundations half an inch deep; some honey but no eggs yet. A great many will want a small quantity at first. If I could see you I think I could make some valuable suggestions. Yours, M. QUINBY.

DEAR SIR: *Colerain, Mass., Aug. 16th, '75.*
Mr. Langstroth sent me some days ago part of sample of your Foundations which I placed in a colony and fed them, (as the bees are getting no honey) I would say that we were well pleased with the way the bees lengthened out the cells. Wm. W. CARY, Sr.

DEAR SIR: *Greenfield, Mass., Sept. 13th, '75.*
Those specimens of Comb Foundations were put as I informed you they would be, into the hands of others for experiment, as I have no bees. Mr. Cary who is an expert showed me combs very beautifully finished from a Foundation.
Yours very truly, L. L. LANGSTROTH.

DEAR SIR: *Christiansburg, Va.*
I am much pleased with the get up of those Foundations, and know from experience that they will answer a good purpose. Resp'y, J. R. GARDNER.

DEAR SIR:—My experience with your Foundations this year is but a repetition of last years'. I can only say with Mrs. Tupper, "*they are as perfect as can be.*" I have noted the objections of Mr. Quinby, and as proof positive of his error send you a complete comb, filled and sealed.
Your friend, AARON PENNINGTON.

DEAR SIR: *Monroe, N. Y., Sept. 11th, '75.*
Enclosed you will find P. O. order for $5., in return please send me by express five pounds of your artificial Comb Foundations. The only objection I have seen made to these Foundations is that the centers will be "thick and tough;" this to me is a recommendation, and I think will enable me to ship honey in the comb with more safety, the combs being less brittle.
Respectfully, THOMAS SHARRON.

DEAR SIR: *Borodino, N. Y., Sept. 13th, '75.*
Your card is at hand. Would say that owing to the delay caused by the money not leaving this office I did not receive the Foundations until our honey harvest was all over. I filled six boxes with them and in seven days had them filled and capped over.
G. M. DOOLITTLE.

SEED FARM FOR SEEDS OF ALL HONEY PRODUCING PLANTS.

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BEE-KEEPERS! TRY IT.

IT GROWS almost any where, is not affected by severe drouth or frost, blooms over 70 days, yields enormously, and is as staple as wheat, sent postpaid, with directions, etc., 1 lb. $1.75. Three lbs. and over, by express, not prepaid, $1.50 per lb., per oz. 15 cents, package 5c. Also Black Mustard postpaid 45c, oz. 10c. Motherwort, oz. $1.00, pkg. 10c. Linden (*tilia Americana*) per lb. 75c. Melilot (sweet clover) lb. 25c. All warranted pure and reliable.
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1875. ITALIAN BEES. 1876.

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Bees are in the California or Harbison hive. The hives are made of the best material and workmanship, and well painted.
The Queens are all of the present year's raising. The combs are all straight and are also mostly of the present years make. In short, all are in as perfect condition as can be found in any apiary in the World.
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Terms cash.
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2m San Diego, California.

GLEANINGS IN BEE CULTURE.

DEVOTED EXCLUSIVELY TO BEES AND HONEY

Vol. III. NOVEMBER 1, 1875. No. XI.

PROTECTION FOR OUT-DOOR WINTERING.

FRIEND NOVICE:—We are not feeling very well just now, we are a little "out o' sorts," somewhat "huffy," our "dander 's riz." Prudence would dictate us to keep quiet, to smother our indignation, but unless we in some way "give vent to our pent up feelinks" we may be permanently injured by having it strike in. There is perhaps no man in America that we would enjoy a good social "bee chat" with better than with yourself, and yet here you have been perambulating, shying through this state, almost within cannon shot of our bee yard and have "passed us by on the other side" without even as much as, "our compliments sir!" To say that we are angry would be "putting it" mild, why, my dear sir, our ears fairly tingle with rage; we are *so* mad we are *almost* provoked. Perhaps we ought to excuse you in consideration of your having two ladies in charge, but had we been at friend Butler's just twenty-four hours sooner we should have monopolized your time an hour or two in spite of the ladies, at the expense of a fifty mile trip with you on the R. R. We will forgive you on one condition, viz.: that you put one average stock of bees away in winter quarters *a la* Butler and note the result. Make the box water tight, so that no water can get in from outside, and large enough to give you a space of three or more inches between hive and box, on all sides, and top of hive. Arrange the entrance so that it *cannot* get clogged with dead bees, (old bees will die, no danger of ice) take off top board or cover, put two sticks an inch apart across the centre of frames for winter passage, cover with cloth or mat, (we use old worn out grain sacks cut in pieces of suitable size) pack the space snugly with dry wheat chaff or finely cut straw (sawdust is not good) and leave them there till fruit blossoms or longer, next year. On some cold freezing morning next April open this hive and notice the difference between it and those outside. See how warm it is, how nicely the bees are spread over the combs in all parts of the hive while in those outside, they are packed in a snug, compact, winter cluster, with more or less dead bees outside of the cluster, killed by the cold. We now have 60 stocks snugly packed in boxes, all ready for winter, where we shall leave them, with but little care and no anxiety for the next seven or eight months. We are so well pleased with our success in wintering and *springing* bees in these boxes for three winters past, that we shall continue it until we *do* meet with disaster.

Friend Novice, please pack one hive away as above described, *now*, and give it a fair, impartial trial and oblige, Yours truly, J. H. TOWNLEY.

Tompkins, Mich., Sept. 22d, '75.

PREPARING YOUR BEES FOR WINTER.

ON page 97, Vol. 2, we gave our ideas of how best we might avoid loss in wintering, and from the way in which our bees wintered we have no reason to change our views. On looking over our bees to-day, Oct. 6th, we almost feel as if we could point out which colonies would winter, and which would not. We feel sure that dampness in some form or other has much to do with the recent losses, and we most heartily agree with friend Townley, in advising that they be all "fixed," whatever the plan may be, during warm, dry weather. So far as we can recollect, our bad losses occurred when we had housed our bees during cold, wet weather; and indeed in the fall of '73 they were housed during a snow storm. We had waited so long that we dared not wait longer, so in they went, making the house damp and chilly, and so it seemed to stay, damp and chilly, the whole winter long. *Perhaps*, the manure heaps contributed to keep them damp during the entire spring also. Now, last fall we put our bees in the house on the 3rd of Nov., at least 2 weeks earlier than ever before; they were put away as "dry as a chip," for it was during a very dry time, and the weather was so warm that we feared the consequences, yet they seemed to go into that desirable dormant state at once, and as we were all taken up with the "forcing house" then, they were almost entirely "neglected (?)" until March 15th, yet strange to say, they seemed almost precisely as they were the day they were put away, and they made as fine progress as one could wish, until the April freeze.

Now then: a hive to winter should be so full of bees that if you turn up the quilt at any corner, say any day that is warm enough for them to be flying some, you will find bees all ready to rush out, and every comb should be so well covered that there is no possible chance for mold or dampness. You have perhaps all noticed how quickly a horse will dry off after having been out in the rain; if he is warm from being driven he fairly makes the water "steam," as it turns to vapor, well, a *strong* colony of bees will do the same thing; they will dry out a damp hive, or a set of damp, moldy combs, and in fact you may drench them with water, and they will very soon be all right again if you give them only half a chance, whereas a small colony could do nothing, but would remain damp and cold until they perished. If you find a colony when this reaches you, that has only a cluster in one side, the combs containing watery honey or looking blue and moldy, as they usually do when such a colony has been fed up in Oct., you may be pretty sure that they will get some disease during the spring or before, and that if you risk them thus you will lose the sugar you have fed, lose your time, lose your bees and Queen, and what is worst of all, lose your ambition and may be, your self-respect. The remedy is to unite them until they are dry and "sassy," and able to drive out not only moth millers, ants, and all insect enemies, but also dampness and the wintering malady as well. For directions for wintering, see Nov. number of last year. A colony to be fit to

winter should have bees clear up against the sides of the hive, all up against the quilt, everything waxed up tight, and covered with propolis, etc., etc. If you will examine a powerful colony, and then one of these puny ones, carefully noting the difference in the internal aspect of affairs, you will get at our meaning; even should you succeed in wintering the weak ones, they are so much of a task and bother, that a dozen of them will hardly give the profit of one powerful colony. To illustrate: on page 74 we mention having given a weak colony 3 combs of brood and bees from a strong one, and as it saved them we thought we had done a fine thing. Well, the shock on the strong colony before it was ready to bear it, was so heavy, that it was almost ruined, so far as honey was concerned, for the season, and the one that was helped was no better. Do you not see that it would have been policy to let the weak one die, *even in the middle of May?* We have very little fear that our fellow "*novices* will any of them have their colonies too strong.

Where bees are wintered in a frost proof repository, we really cannot think it is worth while to bother about the matter of ventilation. If they had enough on their summer stands, they will certainly have plenty in winter. We would have the house or cellar so ventilated that the air is at no time unpleasant to breathe. Cellars in a clay soil, are apt to be damp; the plan given in Oct. No, of last year, we think the best remedy for this. For out-door wintering, we would use the straw mats, or the plan given by Mr. Townley; in regard to the straw packing, we think we would prefer to admit the sun to the front of the hive occasionally, as some one during our recent trip told us they had been doing successfully, yet colonies such as we have tried to describe, we think would winter safely almost any way. We shall pack our Quinby hive in the way Mr. Townley suggests, as an experiment, and will try and do it to-day, yet as Mr. Q. and his neighbors seem to have mostly abandoned the plan of out-door packing, we cannot feel a great amount of faith in it. Does not the house Apiary embody the same principle friend T., and at an immense saving of time and annoyance?

CALIFORNIA.

BY OUR OLD FRIEND AMATEUR.

DEAR NOVICE:—I think that you and I commenced bee-keeping about the same time. I was *very* enthusiastic and quite successful from the first, until several bad seasons in succession took away all profits of the business, and thereby cooled my enthusiasm. However I conceived the idea that I could do well with bees in Southern California. I left my native home in the Mississippi valley and came here. I used to read *all* your articles in the *A. B. J.*, and it was not long after you commenced writing for that journal, that I constituted myself one of your most enviable rivals, in practice I mean; although I used to do a good deal of theorizing in the journals too, but have long since, laid that aside. Many hints have I received from your articles, and *always* adopted them but have done away with all. I believe except the idea I got from reading your first description of extractors. I still hold to that, with some improvements which you will notice in my description in Sept. No. of *A. B. J.* The hive I am now using, I commenced with five years ago, and it is more simple and cheaper than your "Simplicity." I have also read your "GLEANINGS." Like it very well, but think there is rather too much "Novice" and not enough "*gleanings*."

What I was going to say was about the rivalry I instituted against you without your knowledge. I always wanted to beat you in the bee business *practically* and now I have done it and come to boast over you a little. In the first place, I have handled more bees and taken more honey in one season than you ever did. Secondly I have taken more honey per hive all things considered, than you ever did, and probably more, without considering condition, time etc. Did you ever exceed 141½ lbs. per hive on an average throughout your entire apiary—weak and strong? Thirdly, I have taken more honey in one day without an assistant, than you ever did. And I would like to know *who* has beaten 1170 lbs. Fourthly, I have beaten you on the arrangement of honey house and apiary. Now as I have "tooted my horn" maybe I had as well stop; but no, I guess I had better tell *just* what I *have* done and how I did it.

Well first, I commenced here the 5th of last May with 144 swarms in old box and Harbison hives, many of them new swarms. As the swarming season here is in March and April you can imagine how much of the season had passed before the 5th of May. After that time I had to send to Los Angeles and have material cut for my hives, etc., so that I did not get through transferring before the first of June. Oh yes! I should have said that I have transferred more bees in less time than you or any other man. I transferred in one day with one assistant *twenty-five* colonies from box to movable comb hives. Well, I have increased from these 144 hives to 305 and have taken 20,375 lbs. honey. I expected to have reached 30,000 but calculated too much on honey dew this fall. However there are four or five thousand lbs. in hives now that I will take out. So you see I have taken on an average 141½ lbs. per hive throughout the whole apiary, and I assure you that many of them were in any thing but good condition when they were transferred. Thirdly, as I stated, I have taken in one day—without an assistant 1170 lbs. honey, and with an assistant 1800 lbs. Fourthly, my apiary is arranged on a smooth piece of ground constituting a bench about 12 feet above the land below. The bee house—or honey house—is built on the edge of this bench—or in the bank so that we go from the ground of apiary into the second story of building, where are the extractor, stove for heating water, a small tank holding 75 gallons, etc. In the lower story are kept the carpenter's tools, bench, etc., the large tank, framed in one corner of building stout and strong, boarded up and lined well with zinc. This tank holds about 1000 gallons, is in south-east corner of building and is exposed to the sun by window on south side of upper story. It is covered with fine wire gauze, and is protected by a partition in the upper story, from dust, dirt, etc. The honey is first put into the small tank where it stands until the trash that naturally gets into it when extracting, all rises to the top, when it is well skimmed and honey drawn off into the large tank below. The object of the gauze cover and exposure of the large tank is to evaporate the honey thoroughly before putting up for market. The honey is drawn from the large tank into cans, barrels, etc., for market. The arrangement of the apiary is in parallel rows 8 feet apart, with hives 6 feet apart in rows, 50 in a row, 25 each side of the door to honey house. My intention is to have an arbor of grape vines for each double row of hives, the rows of posts for trellis 8 feet apart, and vines 6 feet apart in each row and each double row—or each arbor to be 10 feet apart. The rows running north and south, and hives setting just under the edge of arbor with openings outward, or, the hives on the east side opening to the east, and those on the west opening to the west. Then I can go under the arbor and between the rows of hives and be behind each while I work with it. This I like better than your arrangement, for I am always under shade and away from the bees.

I have this season had a temporary shed made by throwing brush overhead, but I intend that the vines shall take the place of the brush. My intention is to provide for 500 swarms, this you see will take 5 double rows with 100 hives in each, or 50 hives in each arbor on each side of the avenue leading to the door of honey house. Thus you see I have an apiary of 500 hives in a space of 300x90 feet. The apiary being on higher ground than the front part of lower room of building, I am not troubled by the bees in driving a team up to the door to load and unload. If you had a big lot of bees and honey to handle, you would readily perceive the advantages I have over your arrangements. My intention is to keep not over 500 colonies in one place.

Although I have beaten you so badly this season, I expect to go far ahead of this year's results next season. This has been a very poor season, *they say*, and

I suppose it has been much worse than usual, but I will be satisfied if they all average with this. I have a little idea in my head, "which, pardon me, I don't mean to tell," by which I expect to go far ahead of anything I have ever done with bees. But I will wait until another season is over before I tell it, and if Amateur makes more honey per colony next year than any other man in the United States—well, what then? And Mr. Novice, this is *exactly what I intend to do.* I will commence the season next year with 200 colonies (as the bees I handled this year were not all my own). We don't make any calculation on wintering, as bees gather honey the year round. In the valleys bees do better in winter and early spring. Bees do not gather propolis here in the mountains at all, but in the valley they gather as much as with you. We have but few scientific bee-men here. I have created quite a sensation this season, but will cause them to open their eyes another year.

I should have said that I intend trying one of your "lamp nurseries" next season, as I have never tried it. I think the idea a good one.

Can you suggest any plan by which we Californians can realize more than 10 cents per lb. for our nice sage honey? It is better than the white clover honey of the east, and it is a shame that we don't get more than 10 cents for it. Our second rate honey is about like the golden rod or smart weed honey of the east, and we get 7 cents for it. I have now about 12000 lbs. of nice honey that I would take 12½ cts for, and deliver at depot.

Anaheim, Los Angeles Co., Cal., Sept. 19th, '75.

Many thanks, friend Amateur, and we are especially glad that you had the frankness to say what none of the rest of our friends have; viz., that *we* are talking too much. We think you are right, yet in the face of it must say that we did in '70 get over 150 lbs. to the colony, but we fear we shall never do it again.

If you arrange your hives hexagonally, using the same plan you have, you will have the same amount of room between them, and get them much nearer the house; also, do you not lose much labor by not having your house in the centre of the Apiary? Why does not the house Apiary accomplish all this much more effectually? We do feel sorry many times when we think of the many things we have advised in time past that have never been of any practical use, but are you sure you have wisely laid aside all except the extractor idea?

Should we remove to California, or even to Michigan, we feel sure we might make much more money than we do here, but should we stand as good a chance of making GLEANINGS useful to the great mass of our readers? in fact is it not better for us to have rather a poor locality so that we may see the worst features of the occupation?

PREPARING FOR WINTER.

THE following is from an article that the *Country Gentleman* of Oct. 7th, credits to the London *Agricultural Gazette.* It so nearly accords with our views that we give it a hearty endorsement. Of course the author is considering for winter, not for brood rearing. A good strong colony that has ceased brood rearing and gone to sleep by the first of Oct., we think all the better for it, and are much inclined to think as Mr. Quinby suggested, that they would be all the better if they could be kept sleeping until April 1st. If you want a few to "play with," during the warm days of Nov. and March, all right, but it won't pay to tinker with colonies that you value, in that way.

We know that rapid feeding or a large quantity of food administered at one time, is deemed most unwise by some bee-keepers, on the ground that the bees put the food into the brood cells, and thereby prevent oviposition and the "consequent production of the all-important young bees so positively essential to the existence of a colony during winter." But this evil, if it be one, is more than counterbalanced by the benefit arising from having the food stored, its watery particles evaporated, and the whole sealed over before the advent of cold weather.

When feeding is protracted till the temperature falls, many cells that should be closed are left open, the aid which a warm atmosphere gives in promoting evaporation is lost, and candying of the syrup or internal moisture, which is very hurtful, follows. Besides, late breeding is not desirable, for in hives that have had a successful summer and are left undisturbed we find it is the exception and not the rule. Bees naturally go into a state of repose at the end of the honey harvest, and hence, by completing the work of feeding as early as possible, we allow them to get sooner into that inactive condition, which is not only beneficial to them, but preparatory and essential to enable them to meet with impunity the severities of winter. A bee at rest, and scarcely consuming any food, will live three times as long as one that is always moving and frequently on the wing.

Age, therefore, does not greatly affect colonies that spend their time hanging in motionless clusters, and their powers are but little impaired. If they go to roost before the close of September, and continue quiescent afterwards, they can do very well without any addition to their numbers from brood till the following spring. In proof of this, we may refer to two adjacent hives that were last year crammed with honey, and, for want of room, gave up breeding early in September.

From one of these, in order to make its Queen resume ovipositing, and get young bees, that are deemed so "essential," we, by means of the "slinger," extracted all the honey from two of the central combs. As expected, the emptied cells were soon filled with eggs, and numbers of young brood were hatched out before winter.

But with a view to obtain and compare results, we allowed the loaded nurseries of the other hive to remain as we found them, and its bees to relapse into their former dormancy. Both hives passed through winter satisfactorily; the one, however, which had only old bees to begin the campaign, quite outstripped its fellow that had a population of both old and young, and was ready to swarm a fortnight sooner. While, therefore, it may be true that autumn or late-bred bees are essential to the welfare of stocks which have their activity prolonged by driblet or interval feeding, it is no less true that stocks which are quickly fed up and then left to enjoy that autumnal repose which they naturally seek, have no need of them.

In spring small doses of food given over an extended period of time stimulate oviposition, and hasten a hive's progress; but we deprecate the production of brood in a hive after the normal period for it has passed.

Our counsel for autumn feeding is—give early, rapidly and abundantly.

Not a season passes but we have more or less who have entirely neglected feeding until about the 1st of Nov., and then ask what they shall do. Judging from our own experience, we should say, you will probably lose your bees anyway unless you can procure combs of sealed stores to give them. If their hives will hold the bees, the next best thing will be to unite them until they will hold no more; *perhaps* candy will now help them through, but as yet we have no record of recent positive experiments on the matter. We have one neighbor, Mr. John White, of Chatham Centre, this Co., who feeds late with the tea-kettle feeder and has good success, but his bees are very strong indeed, and as soon as they are fed he puts them into a very dry cellar made in a gravelly side hill. While he succeeds, we have innumerable reports from others who fail in trying to do apparently the same thing.

Well ripened sealed honey in dry, clean combs, we believe is *generally* wholesome for the bees, and sugar syrup under the same circumstances, *always.*

LINDEN ORCHARDS.

DEAR NOVICE:—It is too bad to throw cold water on any of your bright anticipations, but I am moved to undertake the thankless task. You are building upon the prospect of a speedy yield from your basswood orchard from the fact that there were a few blossoms this year. Now any old horticulturist will tell you that among a large number of trees there will an occasional one blossom, and perhaps fruit quite young, and yet the majority show no signs of bloom for several years. In a pear orchard of 250 trees I had one blossom two years ago, and the two succeeding summers not a blossom. Another bore fruit last year and this year, but no other tree has borne. The probability is that some local cause has acted to hasten maturity in the few trees which bloomed. If you will go out this week and dig a circle around one of your young basswoods, and cut off all the roots with a sharp spade, not near enough of course to destroy the tree, you will be likely to find blossoms on that tree next year.

If your orchard is planted close, as I think it is, with a view of thinning out as the trees grow, you can make a practical use of this knowledge, as is sometimes done with large commercial fruit orchards. Suppose the trees are planted thus:

o o o o o o

i o i o i o

o o o o o o

i o i o i o

o o o o o o

i o i o i o

with the view of eventually thinning out all the o's and leaving only the i's standing. The o's can have their growth checked by root pruning and be thus thrown into bearing sooner than they otherwise would, whilst the i's are growing and getting ready to occupy the ground. This root pruning can be done most cheaply by running a sharp plow along the row throwing a couple of furrows from the trees and then running the plow in the bottom of the last furrow next the trees. By taking every other row in this way both north and south, and east and west, you will see that all the trees but the i's will be root pruned. Now I don't say that I ever saw a basswood orchard treated in this way, but I know it works with apple trees, and I *think* it would with basswood.

The two swarms I got from Adam Grimm have not had a very fair chance, but have shown themselves good stock. One young swarm made from one of them, having raised its own Queen and being supplied with empty comb and some brood, filled a two story hive and sent out a swarm. So a young Queen is no preventive of swarming with *that* breed of bees.

The "Novice" honey knife works very nicely and saves time where there is a large flat surface to uncap.

An unusual amount of buckwheat in my locality has made my bees rather wild on the swarming question, so in spite of me I now have 40 colonies.

B. LUNDERER, Chicago, Ills., Aug. 18th, '75.

Very likely you are right, friend "L.," for we *did* employ a man to spade around the trees a year ago last spring, and he did it so well that he actually *killed* one of them.

As the principal part of our linden honey comes from the vicinity of our plantation, we have good reasons for starting a house Apiary there, even before it is in bloom. Our trees were planted with a view of thinning out as you suggest, but they are planted hexagonally, like the hives in the plan of the Apiary as given on page 25, Vol. 1.; this arrangement occupies all the space to much better advantage than planting them in squares.

OUR OWN APIARY.

OCT. 4*th*.—The yellow C. sugar, fed in the open air, works beautifully so far as keeping robbers employed, is concerned. It is a great relief indeed to be able to work right along without smoke when preparing them for winter. The dry sugar seems to work precisely as does meal feeding; they hum as merrily over it as if it were clover blossoms, and are so intent on it that they will hover over it when a handful is held out to them with as peaceful a hum as one might wish to hear, but if a single cupful of water be sprinkled on it, the tune is changed at once, and robbers pour in from all sides in an incredibly short space of time, indicating by the raised note that peaceful industry is at an end; the fierce passion for rapid accumulation of gains, it may be at the expense of the downfall and sometimes even the death of their fellows, is strikingly human, and affords a fair illustration of the depravity that results from making riches the sole end and aim in life.

Although we keep the sugar covered, the dampness occasioned by the night air is sufficient to start the robbing note, and even a single spoonful of honey will, after they have once been started, cause such a commotion that many bees will be killed in trying to get into other hives. In the house Apiary we have the feeders placed next the wall, and all we have to do in feeding is to go around with our coffee-pot—no covers or anything of the kind in the way. Well, we have once or twice incautiously left the door open, and the robbers evidently consider this house Apiary a "mine of sweetness," by the way they now attempt to crowd in, and try to force a way through those same "auger-holes," when any robbing is afoot.

The very best workers we have had this season and last, have been the hybrids from the daughters of our imported Queen. Every one of them has ample stores for winter without feeding, and yet they had so many bees that we divided them all about Sept. 1st. Now some of the new colonies reared Queens of their own as we have mentioned on page 124, and we had decided to kill these Queens and unite the stocks with others, but to-day on looking them over—these hybrids always have had a way of intimating that they did not require any of our assistance in their housekeeping affairs—we were astonished to find them large colonies of bees with abundant stores, and an amount of brood that was astonishing, and this at a time when we find hives full of bees of the old *yellow* stock that have not an ounce of honey. Now if we were to make a business of rearing Queens for sale, we should probably do wrong to keep such stock, but as we do not, but rather are trying to raise bees that will stand our winters, we shall keep such colonies as gather most honey, even if they are dark, and as cross as the Egyptians, when there is nothing for them to do.

Oct. 5th.—We have had several fine days since the frosts, and now the bees are abandoning the sugar and are bringing in loads of different colored pollen, particularly the dark green, which we think must be from the red clover, for we tasted it and it certainly is not *propolis* this time, any way.

We are *sure* now that bees can get pollen many times when they will not. Colonies having young late Queens are bringing it in briskly, while the old stocks are bringing none.

Oct. 18th.—A friend has just mentioned that he allowed a fine colony of Italians to starve in Feb. last. We advised him at the time to give them candy, and he bought a pound for them just in time to find them all dead. The point is that he gave the candy to another stock, and they left their sealed stores for it and ate the whole pound clean. As he simply laid the sticks across the frames under the quilt, it makes a very easy way of supplying colonies that are short of stores, but who can assure us that it will result in no injurious form of activity?

A bee-keeper living near Newport, Ky., had a brother in the vicinity of Moscow, Russia, who recently sent him several Queens. Thro' the kindness of some of our subscribers, a daughter of one of these imported Russians has been sent us.

About the 1st of Sept., as we took our usual promenade through the Apiary just before dinner, we discovered a very pretty Queen resting on one of the hives,—by the way, you can see this very hive in the fore-ground of the view of the house Apiary, which stands in the north-east corner of the enclosure shown in the Lithograph. We stooped down to enquire into the trouble of her ladyship, "poor thing!" one wing was a little defective, and we were engaged in tossing her up to test the matter, when Blue Eyes interrupted by singing out, "dinne's weady, papa!" and we hastily put her back into the hive to pacify the bees, turning the register on "not approved," until we could give them a better one. "Supposing we should find her laying, after all," thought we, as we were carrying them a Queen cell a few days after; and surely enough a fine lot of brood we found on looking, and stranger still, her bad wing had become perfect. *Was* this the case? Not at all; the Queen we put into the hive came from some other which must be queenless. This was so, and it proved to be in the house Apiary—we can run *them* over very quickly. As we looked the hive over, the peculiar hum of distress that almost invariably indicates Queenlessness was very marked, and as the Russian Queen reached us just at this time, we could not resist the temptation to try our skill in releasing *fertile* Queens at once. Accordingly the box was opened and the cover was presented to the bereaved colony to see if they were peaceably inclined toward the bees that adhered to it. Much to our surprise the first bee that touched the cover with its antennæ uttered a peculiar note, and straightway every bee of the colony apparently, turned itself about and scampered in response to the call, at the same time joining in the note of rejoicing; this note is about the same that we hear when a cluster of young bees have just discovered their hive after having been shaken off the combs, and the consequence was that we soon had almost the entire colony hanging to the little board, for the simple reason that they were attracted by the scent of a fertile Queen. Of course we gave them the Queen when we found they wanted her so badly, and never did subjects behave with more commendable decorum, unless it were that their tokens of regard were a little too vehement, as Mrs. R., who was called to witness the curious sight, suggested. The Queen began laying at once, and on our return from the West we found an almost incredible amount of brood. Now it is our opinion that 3 Queens out of 4 might be let loose at once with safety, and to determine *when* it is safe, simply show the bees a piece of comb or wood that she has been crawling over, and see how they receive it. We have liberated many in a similar manner, and we firmly believe that many a Queen has starved in a cage, when had she been allowed to run among the bees, she would have been happily ovipositing. Now we know the danger of such advice, and therefore suggest that you first practice on a Queen of no value, and if you always keep your smoker in hand and your wits about you, you can put valuable Queens where you want them with almost perfect safety.

Caged Queens when not watched, are subject to many mishaps, see the following. Our cages always present food on both sides of the inmates.

I pressed the cage into the honey so the Queen would have food, but I opened the hive the third day to liberate her, and the bees had removed all of the honey out of her reach and she was dead. I learned a lesson; the lesson is, never trust black bees to feed a caged Queen, but put the feed in the cage secure from the bees. W. A. EDDY, Easton, Wis., Oct. 19, '75.

Problem 1. Have you solved it? (see page 18, of GLEANINGS, 1874). Has any one tried to winter bees by that? If your solution is satisfactory, then why use syrup? Why not have a two story hive to winter? the space between the stories will afford good passage for the bees? P. MOYER.
Sharpsville, Pa., Sept. 13th, 1875.

Yes, we tried it in this way; we made some home-made candy and put it over the cluster, it soon got soft and sticky, and finally ran down on the bees and daubed them up in such a way that we never wanted to see any more candy, and we suppose they felt about as we did. The year we had the manure heaps we made some better candy, but they died in spite of it—the *candy* didn't kill 'em,—we aint going to *tell* why *they* died. Well, we went visiting two weeks—when we got home, our feeding was rather behind,—about the 13th of Oct., we were so fearful that they would not get it nicely sealed that we stopped feeding—sent one barrel of A sugar to the confectioner's, and he has promised to make it all into nice, hard candy, for $5.00—any sized or shaped sticks that we wish. Now you see we are going to give several good, strong colonies about half their rations in candy laid under the quilt on the frames.

P. S.—Confidentially—we are going to keep that barrel of candy in the barn.

We think the two story plan would be tip-top, and when we get a colony too large to get into one story, we will try that too. We made holes in the combs of about half of our stocks last fall, but could see no difference, they all wintered equally well—put in bees enough and they can go over the top and under the bottom of the combs.

Oct. 2nd.—The candy is made, and we have just been putting the house Apiary in winter trim. All unoccupied combs are removed and piled up where they will be handy next spring, in S. hives piled one on another in the centre of the room. We have been rather disappointed to find that our strong colonies when thus condensed, do not cover more than from 4 to 7

combs, yet when these are well filled with stores, we think the supply ample. Where there is any doubt in the matter we lay some sticks of candy on top of the frames under the quilt. The sticks are 10 in. by ½, by 1½. The bees do not save it for winter as we had been calculating, but are eating it up at a pretty good rate during this fine weather. We have given one colony nothing but empty combs and candy; as the candy is very hard and brittle, we cannot think it unwholesome, fed during any kind of weather. It costs us about 12½ cents per lb., the sticks weigh about ½ lb.

Nov. 27th.—Have had some candy bricks made—3 lbs. each. You don't need any feeders of any kind, just lay them on the frames, cover them with the quilt, and it's all done; even if you should neglect to press down the quilt after they have eaten it, it will do no serious harm, and you can feed them thus during the coldest weather.

Gleanings in Bee Culture,

Published Monthly,

A. I. ROOT.
EDITOR AND PROPRIETOR.

MEDINA, OHIO.

Terms: 75c. Per Annum.
[*Including Postage.*]
For Club Rates see Last Page.

MEDINA, NOV. 1, 1875.

BLESSED are they which are persecuted for righteousness' sake: for theirs is the kingdom of heaven. Mat. v., 10.

A. B. J., and *Magazine* on hand in good time, but no *World* as yet.

WE can furnish the comb foundations at the prices advertised by Mr. Long.

EVEN if we get only 25 lbs. per colony, and have to sell it for 10 cents per lb., we can *still* afford to keep bees. Eh?

WE will send GLEANINGS 3 months for a copy of the Jan. No. for 1875; or we will send all of this year except the Jan. No., for 50 cents.

SAMUEL T. RAMSEY, 1515 Vine St., Philadelphia, Pa., tenders his services to those who are disposed to exhibit at the Centennial.

AT the prices at which Mr. Harbison offers bees in his advertisement in this No., we should think it cheaper to buy them there than to move them as friend Wilkin is doing.

DON'T confine the bees to their hives; if they get out it is probably because your cellar or house admits light somewhere. If nothing is visible, in any corner, after you have remained in it 10 minutes, it is probably *dark*.

THE Chinese Mustard in Vick's catalogue, at 50 cts. per lb., is quite unlike that of our importation; while the former has a narrow, irregular leaf, the latter has a broad, symmetrical one. It is now in bloom, and the Italians may be seen on it every pleasant day.

WE are glad to learn that A. Gray & Co., did send the extractor mentioned in our last, and if they, or Mr. Gray rather, proposes to make satisfactory arrangements in regard to all the money that has been sent him, we shall take pleasure in so stating it.

KIDDER'S *Secrets of Bee-keeping*, price 60c, for sale by the *Prairie Farmer* Co., is in some respects a valuable work, but besides being behind the times—1868—it also urges its readers to invest in rights to his patent hive, and worse than all, indulges in bitter personalities, which are bad enough in a Journal, but when they get into a book, are bad indeed.

WE have been much pleased by a perusal of *Bees and Bee-keeping*, by W. C. Harbison, published in '60; and if the work is now to be procured, we should very much like to add it to our list. Mr. H. treats largely of bee-keeping in California, and is the only author, it seems to us, who has ever given the subject of feeding during a scarcity of natural supplies, the importance it demands. We wonder that the book has not had a more general sale. We emphatically endorse all he says about keeping bees in a flourishing condition throughout the warm season, by sugar feeding whenever they are gathering nothing, and in regard to regular feeding invariably starting them to the fields for pollen, when they would not otherwise "stir a peg." If you cannot afford to buy the sugar, sell half your bees and make the other half *good*. Feed whenever they are consuming more than they gather.

Michigan Bee-Keepers' Association.

The eighth Annual Meeting of the Michigan Bee-Keepers' Association will be held in Kalamazoo, Michigan, December 1st and 2d, 1875. The first session will convene at one o'clock P. M., Wednesday. Papers of scientific and practical value have been promised by many of our ablest and most experienced apiculturists; while the discussions are expected to be even more valuable than those of the previous annual meetings. The reputation of this Society as being one of the oldest and ablest of the kind in the country, together with the proverbial hospitality of the people of Kalamazoo, should be ample inducement for all who take an interest in scientific bee-culture. We scarcely need to add that a cordial invitation is extended to all, and that every effort will be made to make the coming session a grand success.

HERBERT A. BURCH,
SOUTH HAVEN, MICH. Secretary.

FRIEND NOVICE:—We like your intimation that bee-keepers had better move slowly in adopting the plan of wintering bees in boxes; in fact it we should presume to give advice it would be to go slowly in adopting anything that is to them new, (take patent hives as an illustration) no matter how well it may have been tried or how strongly recommended by others. Years ago we were aware that the plan had been tried and laid aside by much older and more experienced bee men. We have been *led* more by circumstances than otherwise into the plan of wintering bees as previously described, and have so far been successful beyond our expectations; and yet, if we had now a room or cellar that was in every way suitable to winter bees in, one that was affected but little by sudden changes in the weather outside, and one that we could keep *dry* through the winter, we should certainly put our bees there; but, mind you, we should first pack them in the boxes as soon as possible after the honey season was over, leave them on their summer stands until the commencement of winter, when they would be put in the wintering house, box and all; and when set out in the spring we should leave them all snugly packed in the boxes until fruit blossoms, and any weak stocks would be left there till June.

If desired, we will, in some future No., give our experience in wintering bees in boxes during the last four winters, (three of them the hardest for bees we ever knew), in detail, showing just how we have been gradually led into it and how far we have been successful.

J. H. TOWNLEY.
Tompkins, Mich., Oct. 12th, '75.

Honey Column.

YOU may put me down in Honey Column as having 3 barrels of honey for sale. Two barrels nice and white, which I offer for 15 cts. per lb. delivered here, and one barrel dark, at 10 cts. per lb. packages free.

W. D. WRIGHT.
Knowersville, N. Y., Oct. 11th, '75.

I have 2000 lbs. nice extracted honey, (mostly basswood, in barrels and kegs), for which I want 16 cts. per lb. I commenced last spring with 15 swarms, bought one Queen and now have 60 strong stocks with lots of honey for winter. Have taken a surplus of 2500 lbs.

O. H. TOWNSEND, Hubbardston, Mich., Oct. 4th, '75.

OUR HOMES.

BY A. I. ROOT.

INTRODUCTORY.

This will look a little bit eccentric, dear friends, I fear, and for fear you may think I am getting out of my proper domain, or that I am going to trespass on your good nature with some of my new notions, I shall make haste to assure you that this and the next leaf are not really a part of GLEANINGS; they are thrown in as it were—do not cost you anything, and very likely will not be worth anything, at any rate you are to be judge and jury. May I ask you, in any event to please be lenient? The work will cost me considerable time as well as money, and—now really I don't know whether to say I am fortunate or unfortunate, in having little to spare of either. Do you not sometimes think it a misfortune for a person to have been born wealthy? Have not the great majority of our really useful people of either sex, had their powers developed by stern necessity? Now perhaps I can get started best by telling what I intend trying to do in a sort of

PREFACE.

During Mr. Langstroth's visit last spring, we had as you know, many very long talks; and he was in the habit of pretty severely criticising some of my work about the Apiary, perhaps to draw out my reasons, etc., and at one time he asked me if I thought the bees would gather any more honey for having their hives arranged hexagonally, in the form of the cells of the honey combs, etc. Of course I replied that I did not, and then I tried to explain how I had studied to arrange it all to save the time of the apiarist, that when we began to count our hives by the hundred, every unnecessary motion was a decided expense, and that in the present age, time, as well as *honey*, was money and that it was as good economy to endeavor to save the one, as the other. To illustrate, I spoke of the way in which many homes were arranged, how the patient house-keeper was often obliged to go several rods in one direction for fuel, and perhaps nearly as far in another for water, very likely lifting both up inconvenient steps, having unhandy cellars, pantries, etc., etc., and so on without end. "Now," said I to Mr. L., "ought we not to be very careful, that we who have taken upon ourselves the responsibility of teachers, set a good example before our pupils, and try not to fall into the errors mentioned above, in the arrangement of our Apiaries, honey houses, etc.. ?"—I wish I could repeat exactly his reply; it was to the effect that he who should revolutionize the kitchens, pantries, cellars, woodpiles, wells, etc., etc. of our land, and in short make it a study to shorten, simplify and classify woman's work, would be more of a benefactor to our nation than—than—well, really, I cannot remember what he did say, but at all events he wound up by declaring that your humble servant was equal to, at least making an attempt in that direction. The result is, that here he sits—with a Type-writer and lots of blank paper—lots of good will toward you all, health and energy, but with far too little general knowledge of humanity, and perhaps a lack of discretion in properly directing what little he has. Do you remember our text of last month in regard to what is said about being faithful with the few talents that God has given us?

CHAPTER I.

"Be it ever so humble, there's no place like home."

IF I should ask you if you knew of homes that were not pleasant, you would doubtless say you did, that you knew of many, and should I further ask why they were so, you would perhaps proceed to detail very volubly just how so and so do not do as they should. This may be all very well, if in detailing the circumstances we see their errors in a way that will enable us to avoid falling into the same, or similar ones. Is your home a happy one? Is it so pleasant that you prefer to spend an evening there to any other place? Of course I do not know to whom I am talking, nor of the varied circumstances by which you are surrounded, yet I feel that there is a broad field for earnest work, in almost every household. Now before I go farther, I really feel that I must go over at length, in fact at considerable length, a subject that may be considered impertinent or perhaps intrusive, by some of our readers. If we were going to build a honey house we should first need a good foundation, and as many barrels of honey are very heavy, we should need an extremely *good* foundation. It is just so with our homes; a nice pump right in the kitchen close by the stove, would be a pretty "heavy" expense, and to advise everybody to get one,—if I were so fortunate as to secure attention,—might make a domestic "jar," or at least result in a downright refusal to entertain any proposal resulting in any such extravagance, whereas my real purpose is to consider how the expenses of this model home may be lessened, and not increased. The principal idea is to get every member of the household to help, to enlist their hearty co-operation, not only the children—clear down to the baby, but in a certain way the cat and dog also, and in short every bit of animated nature about the premises. I am not

speaking of imaginary things, I assure you, for there is one home that I have recently visited, from which I shall have to draw largely, before I get through, and I earnestly hope I may be able to show you the spirit of it, if nothing more. When I say that the first stone of the foundation of all our work is to be the most perfect good nature on all sides, many of you may say that your homes possess it already, because you never have any downright quarrels. This is all very good, but is not sufficient for the foundation *we* want. To illustrate:

I passed a couple of days in a very pleasant family, recently, and had been talking on this same point. Husband, wife, and four pretty, well behaved children, seemed to constitute almost a model household. Well, on Sabbath afternoon, I—it may be *too* earnestly—urged that we should attend a Bible class, in charge of a lady who was doing a great work of reformation in their town. The husband kindly offered to stay and take charge of their four months old little one, and the consequence was that almost before we knew it, two hours had passed. As we neared their home, our animated talk in regard to what we had witnessed, was interrupted by cries of the baby which evidently touched the mother's heart at once.

"Why my dear husband! how long has baby been crying in this way?"

"She commenced shortly after you left."

"And you have allowed her to cry all this time?"

"How could I help it? I did everything I could think of; didn't expect you would stay so *very* long."

"I declare! this is always just the way if I go out and leave you with the baby."

That was all; it was only a very little thing but both looked pained and unhappy. This wore off after a time, and both were as pleasant as usual; perfectly right, perhaps you will say, such *little* things are not worth taking up and noticing again, but I cannot feel that it is right. It seems to me that husbands and wives—I would like to say, or anybody else, but they don't care so much for each other, and are not so easily touched,—should never speak to each other in this way, or at least if they do, they should acknowledge their error as soon as their stubborn natures will come into subjection. If you are tempted to think this all trifling, remember who it is that has said, "he that ruleth himself is greater than he that taketh a city." In the evening before retiring I ventured to suggest that the speech was hardly a kind one, and I recalled it to mind.

"But it is the truth; it *is* just the way when I leave him with the baby!"

Every time I repeat the little circumstance in the presence of mothers, they seem with one accord to agree that she was nearly if not quite, justified in speaking as she did. Now perhaps I had better take care that I do not become dictatorial, or get into argument, for argument so often results only in strengthening both parties in error, that I earnestly hope I may avoid it. I also would avoid any lingering disposition to excuse my own sex. Granting that he had been very heartless in allowing the baby to cry nearly two hours, what was the very best thing to do under the circumstances? or rather, what is best to do under all circumstances where we are likely to feel the least disposition to tell people wherein they have been wrong while we have been right, and to go even further, any disposition to complain of anybody or anything in a fretful, faultfinding way, *whatever* the provocation may have been? Is it not possible to have such perfect command over ourselves that instead of feeling the slightest disposition to retaliate, we can coolly consider how best any bad matter may be remedied, and at the same time make the author of the mischief a better man or woman, as the case may be? A great part of the world prides itself on remembering a favor, and on being fair and liberal with those who have shown a similar spirit, but in our model household we wish each member to emphatically bear in mind the glorious doctrine of returning good for evil, and that a blessing follows from applying it, in the most trivial actions as well as the greater affairs of life. In regard to the baby I would suggest that as soon as the state of affairs was seen, the mother should at once assume all the blame, if any blame there was, and mildly apologise to the troubled husband for her protracted stay; this would have at once brought out his better self, even had he performed his duties indifferently; and by the way, in no manner can a parent so well show that he "ruleth himself," as by being at all times ready to take all the blame of any misunderstanding. Show that your shoulders are broad, and that you can bear to be blamed for that which you have not done, and above all things, do not fall into the cowardly habit of arguing over "whose fault it was," in the little things that *will* continually go wrong. Careful investigation of the case in question revealed the fact that the tube of the baby's nursing-bottle was of an inferior quality of rubber, and had become so softened by the milk as to cause the sides to adhere together, and so the "precious little darling" had perhaps tugged away at it until long after forbearance had ceased to be a virtue, and then it had simply vented its righteous indignation toward all modern innovations of whatever nature, that stood in the way of supplying even such a little speck of humanity with its needful nourishment. Its papa doubtless after having "interviewed" all the machinery to the best of his inexperienced judgment, concluded that it must be crying simply to have its mamma come home, a feeling in which he probably heartily joined at the time, and so both waited in—guess we'll say *impatience*, while the "long minutes" slowly dragged by. Had the makers of these rubber goods been faithful in little things, all this might have been avoided, and I confess we all indulged in some rather severe censures on the way things were made "only to sell," but in thinking of it since, I fear we did not do our duty. Manufacturers, jobbers, retailers, and business men generally, are fellow creatures, and are probably just as good, and just as conscientious as we are. Ask yourself if—when you are inclined to censure some one—you would do any better if you were in the same business or place. If you say you would, we must take it for granted that you are better

than people in general, and the conclusion is that we are all better than our neighbors. Ought we not to conclude that we are all only a fair average? I think it will be a much safer foundation for our work. After having had considerable experience in business with the jewelers of our land,—the trickiest set of men in the world, some may say,—I feel no hesitation in saying that our business men as a general thing, are very glad indeed to be told the faults of their wares, if it is only done in the proper spirit, especially those who have done a long and successful business. A person said to me a few days ago, in speaking of a brother in the church who is a jeweler,

"I will never enter his store again, he cheated me so abominably."

"Please don't say that, friend H., I really hope Mr. S. is a good christian, like yourself. Please tell me about it."

"Why he sold me these studs for solid gold."

"Well, are they not? they look nice."

"Oh yes; they wear bright, but see how they have blackened my linen shirt bosom."

The button holes were too large, and in slipping about they had marked the linen as with a lead pencil, and it was not until I had explained that even a gold coin would do the same, that I succeeded in convincing him that Mr. S. was honest, and even then he said he had become prejudiced against them and did not want to keep them. Is it not a sure indication that we are wrong whenever we, under any circumstances, feel like saying that we never want anything more to do with a fellow being? I feel very sure that the kindest thing you can do is to tell the dealer pleasantly just wherein his wares have disappointed his customers; he in turn can then tell the jobber in the same pleasant way where the mistakes are, and the jobber can talk over the matter with the manufacturer. Jobbers and manufacturers, and to a certain extent, dealers, seem to have discovered this great fundamental truth, and I have frequently known of their taking back damaged goods and smothering their indignation, in a way that was decidedly returning good for evil, even if the inspiring motive was only to avoid losing one, who was ordinarily a good customer. The consumer is really the one to decide how goods are to be made, and also has very much to say in regard to what prices shall be asked, but the whole matter can be, aye, and should be, conducted in the most friendly manner. Do not for an instant think of crowding your grocer or dry goods man "into a corner," for unless he is a much better Christian than yourself, he will surely retaliate, and then instead of having a friend to deal with you have in one sense an enemy. As quarrels are contagious in a neighborhood, so is peace making, and one peace maker may by force of example do more good in a community perhaps, than even the minister who occupies the pulpit on the Sabbath. Not that I would speak lightly of our sermons, but that they have been heard so often; many times actions will set people to thinking when talking will not stir them. Go *help* your minister in the way I have described.

Now tell your druggist that it is a bad thing to starve bees by having inefficient beefeeders, and a *very serious* thing—at your house—to have machinery for the babies that is liable to cut off their rations; and pleasantly tell him that if he has none better he may get you a *good* one at the first opportunity. A few complaints like this, and the manufacturer will soon do differently, especially after he has had to take back an invoice or two because they were badly made.

CHAPTER II.

"A penny saved, is two pence earned."—*Franklin.*

I suppose you have all heard the matter of buying the various family supplies at wholesale talked over, thereby saving the profits that your grocer must, conscientiously, charge to give him a fair and honest profit. You have doubtless heard enumerated how you might save the profits that go to the "middle men," might save the time it takes to go round and do the marketing, save the time occupied in making change, save the wrapping paper, etc., etc.,—get rich in fact, from the "pennies saved," that now are wasted. This reasoning is all good and sound I believe, and in fact I believe that humanity in general, admits it; but notwithstanding, very few indeed have put in practice and carried out this great plan of saving both time and money. A few went into it vehemently, even went so far as to inform their grocer that they were going to stand his extortionate prices no longer, they could buy as cheaply as he, and the like; did the grocers break down? Surely not. They kept along quietly in the good old way, and bye and bye their old customers came back and traded, in the good old way, and like the thousand and one reforms that come up daily, things soon went back in the same old ruts, wasteful though they were. Perhaps I should say *pretty nearly* the same old ruts, for such excitements do usually tend to work a slow change for the better. I am trying to lubricate the wheels a little, and see if I cannot accelerate the slow change. The greatest trouble in this matter of buying supplies to last a whole year, is—I have been told,—with the other sex. If you put a barrel of sugar in the pantry it don't hold out, as when bought in 2 lb. packages as fast as wanted; there is "lots of it," and where is the need of "scrimping?" Everything will be sweetened up as it should be; the children can have a lump, the baby a bigger one, and bless their dear generous hearts—babies and mothers too if you like—if there is a poor neighbor who has sugar neither by the pound or barrel, or one who never pays back when she borrows, from the store of plenty all are supplied until it is all out, and the hard working husband sees no other than the good old way of getting two pounds at a time, and keeping a constant check on extravagance, by grumbling every time he is told a supply is out. "Whatever *have* you done with so much sugar lately?" And he surveys a row of juvenile faces that, with the exception of the baby, deem it a duty to look guilty while enquiries are propounded as to what was done with the money he generously *gave them* a few days ago; and before you blame the poor man too much, let me suggest that he has learned by bitter experience that he *must* question clear down to the very last last ten cent scrip, as to where it

all went to. Where is the trouble? Trouble there is, for both parents look troubled and unhappy, the children look troubled, and perhaps the only glimpse of sunshine that is at this minute to be found in the household, comes from the baby. "Precious little darling!" she has confidence, perfect confidence in both papa and mamma, confidence in brothers and sisters, confidence in every body and every thing. Is not this confidence, this love and innocence, just what is wanted? To be sure these two parents love each other, but is there not danger of this love being covered up and forgotten in the mutual distrust that now seems to reign? He has no confidence in her ability to handle money judiciously, and she, feels indignant that he should seem to think it all *his* money. Have they not both worked for it? Has she not even worked *more* hours than he? Then why should it not be a partnership, why should he not tell her about his business as he would a friend of his own sex? Why should he not see that her hard and laborious life is all given toward one common object like his own, viz., a nice and pleasant home, and rearing their little family in such a way as to be good and useful citizens, if possible such as will be the pride of their country when they grow up?

It is an easy matter to tell how things are, to tell how they should be, and to tell what ought to be done; but is it not possible to make this woman careful, to cure this man of being stingy—I don't mean you dear reader; no, no, it is some one of your neighbors that you can think of—to make them mutually confide in and trust each other? I feel sure it can be done, with God's help I *know* it can be done; as greater things have been done in our dear little home, I feel sure they may be done in others. By bringing the proper forces to bear I feel as sure this woman can be induced to try to equal—nay, to excel her husband in economy, as that we can teach the blue eyed baby better, who is this minute pouring the blue whortleberry juice out of her sauce plate, all over her clean Sunday clothing that the ambitious mother has donned so as to have her all ready in time for church, and to win that proud smile from her papa when he sees her looking so like a very "pink of perfection." Do you wonder that the poor mother feels like giving up in despair, and just having a "big cry?" Can't babies be taught? Just you try them on some piece of mischief and see. "And am I to be taught like a baby?" says the indignant mother through her tears. "Except ye become as little children, etc." Oh! that we might consent to be as little children so far as touching our pride, is concerned, and that we might become humble enough to admit we are in the wrong, and thus get into a position capable of becoming higher, stronger, and nobler. Will you help? very well; we will commence with the baby. Tell her just what she has done, and how sorry mamma is that she has spoiled all her clean clothes, that poor mamma gets awful tired, etc., but make your sermons short and brief, for babies, and sometimes older people, cannot stand *long* sermons. Now tell the children you will show them a trick; place two clean tea-cups on a clean sheet of paper, fill one to the brim with water, and ask if any one of the children can get the water all into the other cup without even so much as wetting the clean paper. When they get to work with their spoons, the baby will want to try it too. Give her two sauce plates and some water and tell her to be very careful not to spoil mamma's table cloth; when they can manipulate water carefully give them sauce or honey, bye and bye spill some honey on the bare table, and offer a premium to the one who will clean it all up quickest and neatest, always giving the baby a task equal to her ability. Now in your capacity of teacher you should be as careful about using an unkind word, or using the least bit of censure for awkwardness, as you would be in carrying a shovel of coals through a room where gunpowder was knee deep. You can wind up by telling them that mamma has ever so much hard work to do, and that all are going to help make it easier. Baby can be taught to pick up, and hang up things in their places—one of our little ones learned this so well that he would hang up every thing, even down to the shoes and stockings if they were left in his sight, and I verily believe he would have hung up the cups and saucers if he could have tied strings to them—the older ones can put in fuel, clear up every splinter and bit of litter, and the father can set an example for the rest of the household by cleaning his boots with the most scrupulous exactness before coming into the house, etc., etc., and really making it a business to help in every way, both by precept and example. Dare you urge that this takes too much time and is too much bother? Can you fail to see that this plan followed out, would give you a force of workers, cheerful and faithful ones, on the farm, in the garden, the fields, the barns, nay, in the store, the counting house, in our schools and even churches, of a kind that money cannot purchase; a kind of help that is more to be valued than pure gold? More than all, you are at the same time giving your children a part of their education that none but a parent can well give, and one that lies at the very foundation of a great and noble character. Are there ever children that cannot be interested in such duties? I think not if they are taken at an early age, and the parent is sufficiently interested in the work to devote to it all the energy that he does at times to other matters in life. Children can be taught to be neat and skilful, almost as easily as they can be taught mischief; and they can be taught to take pride in keeping their faces and clothing clean, being careful that they do not waste their food, being skilful in the use of their spoon, knife and fork, seeing that everything they have disarranged in their plays, be carefully put away, and so on almost without end. This too can be done in such a way as not to seem irksome to the dear little ones, by any clear, strong, faithful parent; one who perfectly "ruleth himself."

To be continued.

Now my dear friend if you are one of those people who like a bee-paper to be all bees and nothing else, all you have to do is to give these two leaves a twitch and they will come right out leaving nothing but GLEANINGS.

Reports Encouraging.

WE have increased from seven to thirteen, and taken off 400 lbs. box honey and about 40 lbs. frame. Our best stock gave 105½ lbs. We shall pack them in straw the last of November or in December, and not open them until the last of March. Will some one who is constantly experimenting, please try the straw? It is cheap and easy.

Wm. R. EDWARDS, Skaneateles, N. J.

I am a beginner. Started last spring with five stands and increased to nineteen. Have taken 700 lbs. of honey, nearly all in small caps.

R. A. CALVIN, Eau Clair, Mich., Sept. 30th, '75.

REPLY TO JAMES HEDDON.

PERMIT me to give on these pages my report for *this* season, at the *same* time to try to say something to console our much bereaved *friend* James Heddon; begging his pardon however, and assuring friend H. that we only wish to get at facts in a friendly way. Now friend H., I have six thousand dollars invested in farm property, 80 acres, the soil gravelly loam, once timbered with sugar maple, basswood and elm principally. It is in a good state of cultivation and I try to make it pay all I can in a money point of view without impoverishing the soil. I might also add, I am a farmer's son, have taken the *Am. Agriculturist* for years, am 35 years old, and weigh 175 lbs. Am hale and strong, yet withal I find farming a very slow way of making money. The proceeds from this farm for the past three years will not amount to $100.00 annually after paying hired help, taxes, wintering stock, etc.

Now, for bees and bee culture I will take this season, it having been the poorest of all since I have been in the bee business. I sold 5 stocks in the spring at $18.00 each, leaving me 75 to begin the season with; from these I have increased to 175, have sold 25 stocks at $13.00 each, leaving me 150 stronger stocks than I ever before had ready for winter quarters. Have taken 8000 lbs. of extracted honey, 17 barrels or a little less than 6000 lbs. of which, I sold to Mr. Chas. F. Muth of Cincinnati, at 10 cts. per lb. Balance of extracted sold at home by the jar, jug and pailful. Have also sold 700 lbs. of comb honey in frames at 25 cts. per lb., and I have yet on hand about 2000 lbs. of unfinished comb honey which I am selling at 20 cts. per lb.

I have a letter before me received from friend Heddon, in which he says, when Mr. Bingham succeeded in wintering his bees two years ago, about 60 in number, he got $1500.00 worth of honey, all box; now does Mr. H. know this? I presume he does or he would never have written it. This theory being true, only think! of having $2,000.00 buried up in this precarious pursuit. Indeed, friend H. I like to hear men grumble, but you suit me *too* well. I shall withhold my grumbling until I see how well I can do with 1000 swarms, if perchance I winter 'em.

H. M. ROOP, Carson City, Mich., Oct. 5th '75.

HOUSE APIARIES.

DEAR NOVICE:—I desire for my Apiary the severest criticism, and the most thorough practical tests, but it is desirable that they should be made in *good faith*, and with a view to the improvement of our "profession."

The "expensive ventilators" spoken of, if made of wood, would not cost more than two or three dollars, and the painted entrances not to exceed fifty cents. More expensive ones could be used, but they would be no better except for the looks. The house itself may be built of any form or dimensions, and any style of hive can be used in it, though I prefer the close-fitting frame without box, or the Simplicity with some modifications. For common use and particularly for box honey, the form of the building should be rectangular, that form is more convenient, and *very much cheaper* than the octagon. When the extractor is to be used, and one chooses to add the extra expense, the rectangle and hexagon combined is most desirable.

A house 9x15 feet will accomodate fifty hives, and give ample space for eighty 1½ lb. surplus frames to each hive, and for handling the hives to advantage. Such a house, built according to my plans, will cost at least a third less than a building of the same dimensions built the usual way, and less than fifty good out-door hives.

As to my claims in the *A. B. J.*, being "*much too strong*," I can only say that the matter is in the hands of the bee-keepers of the country, and I have no doubt they will decide it properly.

If its claims are sustained—as I have no doubt they will be—it will work an entire revolution in bee culture, and save millions of dollars every year, that are now wasted; and will also open up an avenue of healthful and remunerative employment to the ladies.

J. S. COE, Montclair, N. J., Oct. 12th, '75.

On the 5th of Oct., I visited Mr. Coe at Montclair, and saw his bee house. After returning home, I saw the article in GLEANINGS, on page 131, saying I had never seen his house, etc. I saw nothing about his house, that would lead me to suppose that bees would sting less, than in Faulkner's house. When you and Mr. Coe have made as many tons of box honey in the house apiary as I have, we will hear nothing more about bees not stinging in the bee house.

J. P. MOORE, Binghampton, N. Y.

Late in the season—about the middle of August—I bought two of Faulkner's patent bee houses, one containing 14 stands of Italian bees, the other 15 stands of same—they had gathered no honey this season, and had not been *fed* up to that time, and were consequently not in a very good condition. I was totally inexperienced, never having had any thing to do with *bees*, but commenced feeding them right away, first I fed syrup made from coffee sugar, but they did not lay up any honey, so I bought some buckwheat honey and am now feeding that. But my inexperience I fear will cause me to make some errors that will cost me my whole stock. What would you advise in my case?

J. A. SMITH, Hartwell, O., Oct. 19th, '75.

We would much prefer sugar syrup to your buckwheat honey. See page 69, this same item from friend Prentice will do for those who are so much in favor of the straw packing. They had buckwheat honey. Friend S. we would like to know about those house Apiaries before they came into your hands; have they ever been a success? It is *very* injudicious for beginners to invest in expensive patented fixtures.

I am in doubt about cutting a hole in the quilts and putting in wool. In working that bee house don't forget the small folks who have from one to a dozen hives. I winter in the cellar.

HANNAH W. WILLIAMS, Springville, Ia., Oct. 6, '75.

Send me if you please a little fuller description of "house Apiary." I like the plan and want to put up one like it. Do you make the floor double? How do you make air spaces in outside wall? How large should the ventilator be, from cellar, and above through roof? Do you have any ventilator from outside into cellar?

J. S. NOBLE, Akron, O., Oct. 18th, '75.

We would again earnestly advise that our friends be not hasty in deciding on house Apiaries; can you not wait until we have given it a test for a whole year?

Floor is not double, for we have a very close cellar under it; we do not have any ventilation from the cellar, chiefly because our soil is clay, and damp in cold weather; in fact we have no ventilators more than the 36 entrance holes, and we are very much inclined to think none else are needed. These entrances will be closed with wool or woolen cloth in very cold weather. Air spaces in the walls are made by separating the paper with strips of board—lath will do—thus making three dead air spaces. Each coating of paper we made as nearly air tight as we could, presuming that if the frost gets through the first two coatings it will rarely get through the third, and never, we hope, through the fourth. During a recent freeze many bees were killed by getting too far from the cluster in our out-door hives, but nothing of the kind has taken place in the house, and this one item, during spring and fall, will, we think, prove a great gain.

QUERIES, ETC.

WHAT are the advantages and disadvantages of frames without bottom bars?

Have you tried thin pine guides an inch or more in width? Will the Queen lay in cells built on these wooden guides? P. MOYER.

Sharpsville, Pa., Oct. 6, '75.

Advantage proposed is to occupy with comb the space that is usually taken up by the bottom bar, but the frame is so insecure that we believe the plan has generally been dropped. The irregular bottom made by the bees, and the extra lumber required to make the frame strong are the objections. The Queen will not lay in the cells with wood bottoms, but they will be filled with honey. We think there is no advantage in having these guides over ¼ or ½ inch in width.

How many sheets of Comb Foundations 6 by 16 are in a pound? Would it pay to invest largely? Bees did well this summer, had 11 in spring, have 26 now. Sold $140.00 worth of honey. A. F. STAUFFER.

Sterling, Ills., Oct. 18th, '75.

About 10. Invest largely in nothing until you have tested it for yourself.

I have bought two stands to start with. Have had them 7 weeks; had one swarm about 3 weeks after I got them home, took 65 lbs. of honey from the young swarm and about the same amount from one old one. They were in common box hives and I had to drive them out of one hive into another. I would like your idea as to the best way of wintering. My bees are well protected, as I am surrounded on three sides by woods, and on the fourth are very high bluffs. I have thought of digging a cave in the bluff for wintering, but would like the opinion of some one acquainted with the matter. Am going to use the L. hive. Have just purchased one as a pattern, cost me $3.00.

Yours respectfully, C. A. H. FISHER.

Kenebec, Ia., Aug. 17th, '75.

A cave if dry and frost-proof will be excellent.

I have started my car load of bees to California, and will start with 14 others to the coast to-morrow.

R. WILKIN, Oskaloosa, Iowa, Oct. 22nd, '75

WITH OUR BEES.

"NOW, 'if ever, come perfect days.'" said Cyula, pausing for one brief moment in the doorway, and looking across with longing eyes to the changing woods.

But a few years since, days like this—days when the sky was cloudless, and the sunshine soft and warm, and the maples were turning to scarlet and gold,—such days were sacred to long strolls in the woods for autumn leaves; and now I thoughtlessly exclaimed,

"We will take the whole day Cyula! It is too perfect for anything but the woods, and we may not have another like it."

And Cyula turned, and solemnly laying her hand on my shoulder, led me out among the bees, saying sternly,

"You will spend your perfect day here, my dear! We may not have another like it, you say, yet you think to entice me to the woods when not a single colony is prepared for winter!"

Then Cyula walked into the house for her bee-hat and the Quinby smoker, leaving me to my own reflections.

"O my pets!" I cried, with despair and affection in my heart; "didn't you stand between me and the woods last year? and shall it be the same this year?

And so the day has passed with our bees, and I have only a wee bit of it for myself, now that the sun is low and the air is too cool for opening another hive. But after all, the day has been full of a delight that only a bee-keeper can understand; and not once have I tho't of the woods for whose glories I so longed in the morning. Only now, sitting by queen Maud's door-step, do I look over with a half sigh to the changing maples and down to the dark pines. Maud's colony is one of our best beloved. Maud is Medina's eldest daughter, and Medina, we explain to our village friends, with much satisfaction, is the daughter of an imported Queen. So bright and good are the bees of this colony! when others, Cleopatra's for instance, fiercely dispute at this season our right to interfere with their household affairs, Maud's subjects only buzz enquiringly around our heads.

"And within our heads!" suggests Cyula.

After speaking in praise of Maud's bees it is not pleasant to say anything to their discredit, and yet Cyula by that allusion compels me. But shall the wrong doing of one bee condemn the whole colony?

It chanced this afternoon as I was shaking the bees from a frame, that one crept unobserved beneath my vail, and before I could free my hands and give it an opportunity to return, it had rushed blindly into one of my ears. Then I confess I lost my composure and called wildly for help. It was not the sharp sting so much as the frantic efforts of the little creature to penetrate to the interior, that alarmed me. When, at last, its explorations ceased, and with Cyula's help it slowly came back to the light, I discovered what I had before been unconscious of—that another bee had left its sting on my throat.

"You say that Maud's bees are bright," pursues Cyula. "In what sense do you mean?"

"In each and every sense," I emphatically return.

"They showed their brightness last summer," she continued, "when they swarmed down to the woods and clung to a maple for two hours, leaving poor wingless Maud at home. And when, at last, they decided to return, they showed their *superior* brightness by circling half way round the clearing, entering the apiary from the opposite direction, and plunging into the first hive they came to. Do you remember that we were obliged to throw sheets over half the hives before they found and entered their own home? Bright bees they are indeed!"

I close my portfolio. "Are you aware, Cyula, that it was my intention to give a full account of this day's work? And if you had stayed in-doors, trying to make *nicely fitting quilts*, for the bees—"

"Your article would have been too long for GLEANINGS," she interrupts. And then, as we go in, she adds,

"There are signs of rain in the east. If it be too stormy to work among the bees to-morrow, you shall go to the woods."

NELLIE LINSWIK.

"*Our Clearing*," *October*, 1875.

Thanks friend Nellie, and please do not imagine that articles like the above are in any danger of being found too long for GLEANINGS. Tell us all about how you prepared them for winter, and if we have so many letters from our lady apiarists that we cannot find room, we shall enlarge GLEANINGS, we assure you.

Bees frequently get into the ear by accident, but rarely with a purpose of stinging, yet so strong is the inclination to use the finger to get them out, on the impulse of the moment, that one is almost sure to get stung. This is a very good test of an apiarist's self command; if he or she can stand perfectly still—making no wry faces, but on the contrary looking pleasant "the while" a bee buzzes about and makes frantic efforts to turn round, making a roar meanwhile something like a cataract, we shall have to conclude that they have learned the great lesson of being master of themselves, even while imagination pictures the exquisite agony of one of these intensely pungent stings when planted in such a delicate organ. When handling bees during cool weather in the fall, a young bee will sometimes creep into the ear by mistake, and finding it a warm place innocently concludes to stay until something turns up indicating the whereabouts of his companions. In this case it must be made to get out without too severe pressure; perhaps the aid of some one else may be required. You might try screaming at the top of your voice, but beware how you administer injudicious pokes with your finger. Wear a veil? Well, yes if you *must* have one, but we really cannot help thinking you all ought to feel ashamed of the feeling that prompts its use.

Heads of Grain,
FROM DIFFERENT FIELDS.

CAN I divide a large swarm of bees at this time of the year, and build them up for wintering, that is, get them to raise bees by feeding sugar syrup in September and October so that I will have two swarms having bees enough to winter well, as far as bees are concerned? I have 12 swarms. I lost all but one last spring, and that was Queenless in the spring. I bought 3 good swarms in May, in box hives; transferred them, and in June divided them. In July they were running over with bees, and all cast a swarm, all are now full of bees and honey; when I look into the hives I wish I had an extractor, for there is honey to gather, but they have plenty, and won't work in boxes.
W. A. ADAMS, Easton, Wis., Sept. 6th, 1875.

With a hive of 10 combs well filled with honey and pollen, we think you would be quite safe in dividing, say as early as the first week in Sept. If you have empty combs to fill out both hives, and a fertile Queen to give the queenless part, it might safely be done even 2 weeks later. This is rather unsafe work for a beginner, and where combs are to be built, it should all be attended to in warm weather; it is true that by *very* liberal feeding we may have combs built even in Nov.; but it is quite expensive business, so much of the feed is consumed in keeping up the requisite temperature. We once tested the matter by giving *one* colony a *barrel* of sugar in Oct. and Nov.

I lost 3 stands last winter, and the 3 that I had left I increased to 10 stands, from them I took 200 lbs. of extracted honey. MRS. E. BUTLER.
Scottville, Ills., Sept. 24th, '75.

I started last spring with 20 colonies, nine of them in old boxes, have increased to 50 *good ones*, all in Finn's double walled hives. I would not have a board hive as a gift if I could get Finn's. I am sometimes tempted to smile at your discussions on wintering, and your hostility to those horrible patents. Friend Novice, how about those metal corners? are they not patented? But enough of this now, perhaps you will hear from me again, if I have time. I have taken 1700 lbs. extracted honey, could have done better had I not been too much occupied in other affairs and neglected my bees. Hope to be able to attend to their wants better next time. The clover and linden were failures on account of wet weather, and the honey has been gathered since the middle of August from wild flowers. Yours in sweetness, JACOB J. KISER.
Adelphi, Iowa, Sept. 16th, '75.

Almost all valuable implements, and manufactured articles in common use, are patented, and no one, so far as we know, has ventured to intimate that there is anything wrong about it. The only question is, is it right to peddle individual township, county, and state rights about among the people? In fact, is it right to sell your fellow men anything that you feel sure will be of no use to them?

Such rights have been sold in our own town for the past 20 years, to our knowledge, and although bee-hive rights are gone by, rights for fences, patent well-diggers, etc., etc., have been sold within the past few days, and the money has invariably been paid by men who could illy afford to lose it, yet it has been all this time only a continual loss, for not a single one of the "great inventions" has ever proved to be of any value. One after another has been dropped, and yet the same people frequently waste their hard earnings in the same manner again. Have not the evils of this kind of traffic left their marks in every community in the land? and do such rights ever prove to be of permanent value like other property? Of course we mean the rights that are peddled about to individuals.

A WORD ABOUT MICHIGAN.

FRIEND NOVICE:—We confess to a feeling of pride and satisfaction in perusing the good words you speak of our adopted state—Michigan in last GLEANINGS. It is truly a commonwealth, whether viewed in the light of her natural advantages, fine climate or the wealth, enterprise and general enlightenment of her people. Indeed, in our somewhat extensive travels, no other section of our country pleases *us* so well. But lest some of your readers may obtain an erroneous impression in regard to our state as being a paradise for bee-keepers, we offer a few thoughts as additional to your "Notes by the Way."

A dozen years ago, there could hardly have been found in all the country between the Atlantic and Pacific a more favorable location for the apiarian, but the sad havoc which the circular saw has made in the grand old poplar and linden forests, and the consequent change of climate has reduced the really first class bee sections to comparatively a very few, and these are constantly growing less. Nine years ago, the linden would have furnished ample employment for a thousand stocks (no exaggeration) where we now write; now the fall flowers are our *main* dependence, which materially reduces our profits from the Apiary.

Then our peculiar situation—between the great lakes—gives us a very humid atmosphere, which makes successful wintering by the ordinary methods, quite out of the question. Indeed, for profitable bee-culture, our native state—New York, presents far greater inducements to the apiarian now, than Michigan does, or (in our opinion) ever can.

We give you these ideas, based on actual experience, not to discourage a single person even from engaging in our "fascinating pursuit" here in the old "Peninsular State," but simply as a statement of facts, that your readers may not entertain the notion that Michigan is a paradise for the apiculturist.
HERBERT A. BURCH.
South Haven, Mich., Oct. 4th, '75.

From the Syracuse *Journal*, of Sept. 25th, '75.

A SWEET SIGHT.

HOW THE BUSY BEE IMPROVED THE SHINING HOUR.

Mr. G. M. Doolittle, of Borodino, brought to this city yesterday, four wagon loads of pure and beautiful honey, which he sold to Mr. Roberts, grocer, in the Myres Block, for twenty-five cents per pound. The combined weight of the packages was 7,000 pounds, amounting in money to $1,750. It was handsomely encased in 2,040 small boxes, with glass in either side, showing the white covering of the cells, and they were packed in cases ready for shipment. Of this amount, 4,878 pounds were produced by forty-six swarms of bees owned by Mr. Doolittle, who for a number of years has been much interested in the subject of bee culture. A year ago he possessed one hundred swarms, which came from two swarms he obtained in 1869, but the number was reduced by more than one-half by the very cold weather of last April. Now the number is one hundred and eight.

With the exception of Mr. N. N. Betsinger of Marcellus Falls, who has two hundred and twenty-two swarms, Mr. Doolittle is without doubt the most extensive as well as one of the best informed bee culturists in the county.

The season with us has not been very good, the spring was late and cold, heavy frosts in June, but if my bees had been fed in the spring, they would have given a good yield of honey, but I could not be with them much of the time and they were very bad about robbing, and I dare not feed them without giving the care. I had 49 stocks in the spring, increased to 109 by natural and artificial swarming—took 2600 lbs. extracted and 1500 lbs. box honey. My box honey was about 1000 lbs. less than I expected. Honey was quite plenty but it was so cold they could not store it in boxes. I run only 8 hives for extracted honey, got 2000 lbs. from the eight—don't extract brood combs. Have now got an imported Queen, but her workers are not near as large as the ones I had before. Would it be a good plan to breed from them next year? they seem to be so small and not as good color as the ones I have now. My bees are in rather poor condition for winter, they have too much honey, and I find it a great task to extract so late in the season from hybrids. Yours truly, LEWIS KELLEY.
Smyrna, Mich., Sept. 20th, '75.

We think the *small* bees from your imported Queen an accidental quality, and not a usual one; if very small, we would send some to the person who sold her, and ask if you are not entitled to a better Queen.

EDITOR GLEANINGS:—Please find enclosed $1.00 for which send us a Queen, or get one for us. We have 8 swarms, find one Queenless, and as we don't like to lose them would like to get a Queen for them. You asked in one of your papers who would try a swarm to get an organ with. We got a swarm three years ago to get an organ with and we now have 8 swarms and $32.00 in money. Have bought all of our hives and honey boxes. If we winter them well this winter we shall get the organ next year. We take three Bee Journals.

AGNES & MATTIE KELLY.

Smyrna, Ionia Co., Mich., Oct. 12th, '75.

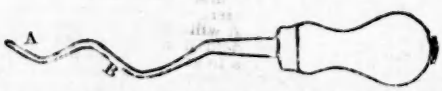
In spite of our decision not to sell Queens, we keep having orders like the above, and it is so much trouble to send the money to some one else or to return it, that we decided a few days ago that we would as a remedy turn right around and *fill* all the orders. The result is that we shall not have 100 colonies, but we will save buying sugar, and we will have as many bees in a hive as we can well get in; if they all winter, we can try our hand at Queen rearing next season. Don't send any more orders this fall,—in fact *please* don't send any more at any time until we tell you we have some ready to send.

You do not know how much your report encourages us, friends Agnes and Mattie; is Michigan the only state in which ladies can succeed in bee-culture? or is it that we can not get the others to talk out?

FRAME STARTER.

I have made an instrument for starting frames when stuck by the bees. I will enclose a plan of it. Please give your opinion of it.

HORACE LIBBY, Box 371, Lewiston, Maine.



B, rests on frames; A, comes under frame; by bearing down on the handle the frame is started without any jar. Handle of wood, lever of round steel. The implement is six inches in length.

We think very favorably indeed of the implement, and it will be an excellent exercise for our friends who are apt mechanics, as are all good bee-keepers, we believe, to see how neatly and efficiently they can get up the various little implements that are so handy in working about among the hives. We remember noticing a very "cute looking" little scraper used for cleaning the wax and propolis from the inside of hives, and also from the honey boards, at friend Palmer's. We will give one free advertisement of such implements, and where we think them meritorious, will explain them by diagram as above. When practicable send us the device by mail, that we may give it a practical test. We hardly need say that no frame-starter of any kind is required where the metal corners are used, and one is hardly needed where the frames rest on a strip of metal—hoop iron, for instance. The objection to hanging common frames on the thin strip of metal, is that it makes a most excellent device for careless persons to cut bees in two. To be sure you can avoid this by working carefully, but with 50 to 100 hives we cannot afford to wait and stoop to look under the ends of the frames to see that all the bees are out of the way. Again, these wood supports will when used year after year, allow the metal to sink into them, and the bees will then glue them so fast, that nothing short of a man's strength can start them with the fingers alone. In regard to killing bees, one of our large bee-keepers,—in fact two different ones recently spoke to the effect that when we began to count our bees by the hundred colonies we could not afford to stop to see whether a few bees were going to be killed or not, and one of them, suiting his actions to his words, stamped a lot of peaceable little yellow-banded innocents into the dirt, just to "save them from starving," for he had given the colony away. He may be right, it may be better for them to die a quick, almost painless death, than the slow, lingering one of starvation, but can we not get along without killing them in either way? This same friend,—he *is* a good friend to you all,—when he has more bees than he wants, as he almost always has, shakes the old ones out on the snow, and makes a colony of the young bees from two hives. Now this may be a good plan, but from all we can gather on the subject we must honestly think the "old bee" theory a great mistake, for we have had bees repeatedly that we knew were all old, rear brood and raise Queens, nearly if not quite as well as young ones. To give both sides of the "corner" question, we should add that two persons have recently, when asked, been frank enough to state that they could see little if any difference in favor of such frames. One was a lady, and when we asked for something to start the wood frames,—we used a small screw-driver, such as comes with sewing machines, always carried in the vest pocket, before we adopted metal corners,—she brought a butcher knife. She was right; everything was full of honey, comb was built above the frames, and all over metal corners and every thing else, and in fact a knife with which to cut things loose was just what was wanted. She had also omitted to use the metal rabbets with the corners. The other person was Prof. Cook of the Agricultural College. He told the students to observe and see if the cornered frames were any easier to handle than those without, all resting on the metal supports; they saw little or no difference. Perhaps with a large number of hives they might think otherwise; at all events we wish every one to speak out plainly just what they think. The ladies also complained that they cut their fingers—that they had not strength enough in their hands to hold the combs when grasped by the smooth part of the corners. Unfortunately these ladies live in Michigan; if they only lived in Ohio they would have no such "troubles." *Our* combs don't get as heavy as iron wedges if we happen to neglect extracting for a few days, and we can take one in each hand and shake off the bees "just as easy as can be."

DEAR GLEANINGS:—The frost came the 18th of Sept., and took all our posies, so that I have been obliged to replace the honey with sugar. The wax scales made of sugar are nearly cubical while those made of honey are very thin, proving that sugar is the best to make comb of. Sawdust does not grow in this

country, and the bees will crawl under the hives unless the earth is banked up, when the rain will spatter the hives with dirt. I fed all a swarm would take up from a box over the hive, the brood nest was spread and frames placed in, the bees in one part reared Queen cells while the Queen was in the other side of the hive. What was the cause?

LLOYD Z. JONES, Galva, Ills.

We have not observed any marked difference between the wax scales made from sugar, and those made from honey. Are you not mistaken?

Bank up with dirt and then put a little sawdust on top. You can certainly collect enough for that purpose.

You divided the brood too rapidly; they frequently do this in the long hives where they do not entirely desert the brood that has been put too far out of the cluster.

My present locality is a very poor one for honey—averaging about 25 lbs. extracted honey to the hive, and the only way that I know to remedy it is to go to a better one. And the best place that I have found is in the mountains—Blue Ridge mountains. They have poplar, locust, white clover, whortleberry, and sourwood in abundance. There is also, mountain laurel or wild ivy, and I have been told that it secretes a poisonous honey or sweet, and bees will work on it, and there have been instances, of people's dying from eating such honey. You or any of your readers, will please let me know if this be true, also if they work on it under all circumstances, if not, under what, do they work on it—is there any way of telling *that* honey, from other honey, except by eating it. And again, would you think it advisable to swap a poor locality, for a good one, and risk the laurel? Please tell me what you know about it.

Bees are doing as well with us now as they have done this year. I told you last fall that my hives had a sour smell about them. They have the same smell now and I find that it is caused by a yellow top weed, that grows around town. I enclose you a sprig of it; you will please let me know the name of it, and if it is a good honey secreting plant. I enclose you a twig of another weed that we have, that seems to yield honey. It has a small white flower and grows from one to four feet high, is in bloom from the 1st of October till frost, it is a very scraggy, bushy sort of weed. Please give the name of that, also if it yields honey in abundance. The one with the yellow blow grows from one to two feet high, with a bushy level top, covered with yellow blossoms.

I have one hive with drones in abundance. It is the latest I have ever known them to keep drones. The hive has a young prolific Queen. The theory that for a hive to keep drones later than usual, is a sign of an old or drone laying Queen, is not a good one I think.

T. B. PARKER, Goldsboro, N. C., Oct. 11th, '75.

As a general thing we would advise our readers to be contented and make the best of things where they are; almost every locality has its advantages as well as disadvantages, and moving is very expensive business. All we know of the laurel honey has appeared on these pages. See pape 17. Is not the fault somewhat yours, as well as the locality? By the time you have learned to be satisfied with 25 lbs. to the hive, you will probably find that your locality will give more, with more experienced management. Friend Doolittle in a recent letter says he has during the past season left no stone unturned that he thought might have afforded a *single ounce* more of honey. As we have said before, if you have none but very strong colonies, and their hives contracted to a space that they can fill densely, we would have no fear but what they will make the sour honey ripe and wholesome, for table use at least, if not for the bees. By some means or other it seems that both specimens sent are yellow, and are only different varieties of the *Solidago*, or golden rod family. During some seasons, and in some localities, they furnish large quantities of honey; at other times and places, they speak of it as did our friend of the sunflowers. It is unusual but not unheard of, for young Queens to rear drones so late.

I had 14 L. hives—failed to feed enough—winter so long that bees died—all save Italians. I bought all the swarms I could—commenced 1st of July. For the first I paid $2.00, then down to 50 cents, and lastly in Sept., nothing at all. I now have 18, and two box. I have extracted about 200 lbs., and will extract 100 more, all since 4th of July. Since the rains in August, we have had just a flood of honey, the box hives around have been filled, and combs built under the benches in many instances. Swarming was kept up until 1st of Oct., or rather the middle of Sept. Such an overflow of honey has not been known within fifty years past.

I want to know what has ruined all our beautiful honey? Besides smelling bad, it is bitter. It smells like ragweed, and tastes like milk spoilt with ragweed. I have been trying for a long time to find out the plant but cannot—all alike as far as I can learn in this valley of Ohio. I am a little fearful of this high flavored honey and will take all the honey I can get and feed lots of sugar. I want to know whether our common shot bags may not make good feeding cloth, it is a kind of duck, and every store has them, I have quite a number of them.

W. F. PATTERSON, Freestone, Ohio.

We are unable to advise in regard to the bad tasting honey, but are inclined to think the bees have the power of making many kinds of honey wholesome if they can have it in the hive long enough where there is an abundance of bees. Even the honey gathered from the seed onions in the Eastern states, rank and strong though it may be at first, entirely loses this onion flavor after it is sealed up, so it is said; and we know of nothing better to suggest in your case, than to extract all the unsealed honey at the close of the season. Shot bags would very likely answer for feeders; you can quickly test them.

DEAR SIR:—With this I send you a small *sample* of *Aster honey*. When first taken from the hives it is nearly as thin as water, or Oliver Twist's soup, yet if it is left in the vial it will candy in a short time. We are having a fine yield from it and beautiful clear weather for the bees to gather it—nights frosty but it does not injure the bloom. If I had fed my bees during August as I ought to have done, I would have gained largely by so doing. *If I had the bees I would get the honey.* I will do better next year. I have given Mr. Long's foundations a trial and they are certainly a great help. I like them better than those I made as they are thicker and easier to fasten into the frames. Bees will build on foundations later than they can on natural combs as more of them can get to work at once. I expect to try them in boxes next season. I. R. GARDNER.

Christianburg, Va., Oct. 8th, '75.

The sample of honey sent we find very pleasant, and it is quite thick and of a rich yellow color. Such honey we feel sure will always sell, and we are sure it will always pay to feed bees in August when they are not getting anything, even if they should get nothing at all in the fall. Friend Gardner's method of sending samples of honey by mail pleases us; a block of wood one inch square and about three inches long, has a hole bored through it lengthwise, and the vial of honey is wrapped in paper and pushed tightly into this hole, making it secure from damage even if the block were thrown across the room. Sending samples of honey by express is expensive business as we have had reason to feel, but a two-cent stamp covers the cost as above, and if tough, light wood—basswood, for instance—be used, there can be no possible chance of daubing the mails with honey.

Some one wrote in GLEANINGS that honey bees worked on sunflowers, I wrote you that it was a mistake, that I had seen a kind of bee gathering pollen off sunflowers, but never once the real honey bee. You wrote me a postal saying that bees do work on sunflowers. There were, say 100 sunflowers growing within two yards to four rods of my door this year and I watched them every day while in bloom and never saw a honey bee on them. In 55 years that I have kept bees I have never seen a real honey bee on a sunflower. Another thing: I sometimes read in bee papers, of bee-keepers watching their Queens coming home from their flight, they tell us they have seen the sign of impregnation, on the Queen. Now what is that sign? I would like to know I have both read and heard that in the act of copulation a part of the drone remains attached to the Queen and that she carries it away, and this is what the bee-keeper sees and knows that all is right. I know that a single thread of a spider will hold a bee till it dies, but a half dozen of spider's threads will not pull a drone asunder in that way. I have tried it and so may you. You may therefore put these two items in your list of Humbugs, they are so, at least to JOHN DAWSON.

Pontiac, Mich., Oct. 4th, '75.

No, no, friend Dawson, please don't think our friends have made false statements just because you have not happened to see things as they mention. There are many things in nature as well as in science that seem utterly impossible, and even in your Bible you find many things that at first view might appear glaring inconsistencies, yet is it not very unwise to say you do not believe them?

"Blue Eyes" wanted a garden,—her papa planted the seeds, explaining meanwhile that they would make trees that would grow "way up high," higher than he could reach, and that they would bear "great big posies," as big as a dinner plate, etc. Now this garden with its fence about it—pine sticks stuck in a circle—was a source of much watching and many visits, and when the great blossoms unfolded, *our* bees were almost constantly at work on them; in vain did we try to have her put her fingers on the yellow Italians as we did, "I 'fraid," was her reply.

Now we think we know why your bees do not do thus; if we had the autumn flowers here that you have, we should think our bees "idiots" to waste their time on sunflowers.

Have you not seen bees so busy during basswood time that they would not touch a frame of comb honey if left on the top of a hive all day long?

Again: it is a very common thing for all who rear many Queens, to see them return with the marks you mention. We see such more or less every season. The appearance is much like a bee that has lost its sting, except that the white substance is much larger, and is so white that the Queen is plainly conspicuous as she flies in the air. It is important to know this, as such a Queen may be introduced at once where wanted. As the eye of man has probably never witnessed this mysterious meeting, we shall have to remain in ignorance somewhat, perhaps. Did you never see the seed pods of the touch-me-nots when they are so ripe that they explode at the slightest touch? Well, it is supposed that the drone expires somewhat in the same way, for we *do* know that the mass of matter attached to the Queen, is really a portion of the drone's body.

This has been the poorest season for *honey* (bees have done rail-road business swarming) since 1868. We commenced with 64 colonies, increased to 96, nearly all *large*, (we like such best for winter) and have extracted 3200 lbs. of honey, nearly all basswood, and have about 400 lbs. in frames. We think the *long* idea hives are most convenient, but we can see no difference between the amount of honey stored in them and the *tall* idea hives. The best yield was from our *cube* idea hives of which we had 7, with 13 combs 17 inches square in each hive. From the poorest one we obtained 108 lbs., from the best one 162, 113 of it basswood, stored in 12 days, most stored by it in one day, 17 lbs. Why they should have done better than the others we are unable to explain, perhaps another trial might change the result. J. H. TOWNLEY.

Tompkins, Mich., Sept. 26th, '75.

The largest swarm I ever had came out last Friday, Aug. 20th. Having no comb, I gave them a sheet of honey from upper story of parent hive, and seven empty frames. In five days they have about half filled the hive with comb. Last spring I started with four hives, two of which were very weak, and now have 8 strong colonies, and considerable box honey. In the three years that I have had bees, I have had lots of fine fancy projects for hives, boxes, houses, etc., most of which I have found foolish before I had experimented on them much. Last spring, I thought I had discovered just the way to ensure straight combs. It was to run strings across the frames to be built in by the bees, to act as both guides and supports. I prepared a few frames by making awl holes through the sides, through which I wove cotton cord backwart and forward, and then smeared with wax to make attractive. When I had my first swarm I put in a few of these, and congratulated myself thinking I had done a big thing to help them on. I thought differently when I saw them day after day, afterwards, tugging at the end of a line like a lot of sailors, trying to get these hinderances out of their way. But hold on, my letter is getting longer than their string.

JAS. E. DEAN, Fishkill, N. Y., Aug. 26th, '75.

Many thanks, friend D., we do like to hear of your failures, for even if we do not publish them, we rarely forget them, and when tempted to try similar things, have the advantage of knowing what we may expect. Suppose now you had patented this, or had advertised receipts for $1.00, or something of the kind,—and in fact, all the receipts we have ever seen offered for sale, are much of this nature,—how would your patrons have felt after having made such a test as you describe?

A. I. ROOT, Dear Sir:—Last winter I was much annoyed by mice getting into my hives, and expect to be the coming winter. To guard against it I constructed "*My metal mouse-guard*" which I enclose.

GEO. W. HORNER, Dubuque, Ia., Aug. 3d, '75.

FIG. 1. B

A

FIG. 2.

Let Fig. 1. represent the front, and Fig. 2, the end view of this metal mouse guard. It is all made of tin. B, is 4½ by 2 inches, and A, 4½ by ½. The openings for the bees are cut in the side of B., 5-16 by ⅞, and the points of the teeth thus left, are folded at right angles about ¼ of an inch, that they may be securely soldered to the middle of A. To use it put A. on the alighting board, and let B. come up tight against the front of the hive, the entrance blocks resting on and against them, where such are used. These guards can be made by the quantity for about 1 cent each, and *where mice are troublesome*, will well repay the expense.

I commenced this season with 40 stocks of bees—increase up to basswood season 26. From 44, I extracted three and one-half tons. From 22, I got 800 lbs. comb honey. Increased on buckwheat 28 swarms. We have had a big frost and no more honey. Will have to feed some.

D. J. BARDWELL, Omro, Wis., Sept. 16th, '75.

I got one ton of honey from 26 swarms, mostly 4 lb. boxes. C. D. JONES, Kirkwood, N. Y., Oct. 5th, '75.

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Good Books.

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